

Exhibit 5



**Harvard
Business
School**

Alain Bonacossa

he/him/his

Research Integrity Officer,
Division of Research and Faculty
Development

617.496.6348 (o)

917.292.8375 (m)

abonacossa@hbs.edu

CONFIDENTIAL

Date: June 14, 2023

By Email:

Dr. Dolores Albarracín, dalba@upenn.edu

Dear Dr. Albarracín,

I am writing to inform you that Harvard Business School (HBS) has reviewed concerns about certain data previously published by Dr. Francesca Gino in the following article:

Gino, F., Kouchaki, M., & Casciaro, T. (2020). Why connect? Moral consequences of networking with a promotion or prevention focus. *Journal of Personality and Social Psychology*, 119(6), 1221–1238.

We have included an appendix to this letter that includes (a) a description of data anomalies for Study 3a observed in the Open Science Framework (OSF) dataset, (b) a comparison of the original data for Study 3a gathered using Qualtrics with the data observed in OSF, and (c) an assessment by an independent forensic firm. In summary, a comparison of the original Qualtrics dataset with the dataset posted on OSF revealed discrepancies in both dependent variable measures in the two experimental conditions, all of which favored the hypothesized and reported effects. Discrepancies were observed in 168 observations, accounting for 28% of the total data for Study 3a.

We thus believe the results reported in Study 3a of the above-referenced paper are invalid due to alteration of the data that affects the significance of the findings. We are informing the article's co-authors, and are recommending the article's retraction.

If you wish to discuss this matter further or if you have any questions, please feel free to reach out to me at 617-496-6348 or abonacossa@hbs.edu.

Sincerely,

Alain Bonacossa
Research Integrity Officer

APPENDIX REGARDING

Gino, F., Kouchaki, M., & Casciaro, T. (2020). Why connect? Moral consequences of networking with a promotion or prevention focus. *Journal of Personality and Social Psychology*, 119(6), 1221–1238.

Data anomalies observed in the OSF dataset (Study 3a)

The screenshot below shows data for 22 participants (1 per row) for the key variables in this dataset:

**Ratings of feeling cheap, dirty etc
during networking event**

**Words describing
networking event**

	E	F	G	H	I	J	K	L	M	
1	consent	essay	MI1	MI2	MI3	MI4	MI5	MI6	MI7	words2_cond
531	1	1	1	1	1	1	1	1	1	1 socializing,party,impression,connections,work
532	1	1	2	2	2	2	2	2	2	2 success, happy, promotion, networking, impressive, connections
533	1	1	1	1	1	1	1	1	1	1 making the money for my dream
534	1	1	1	1	2	1	1	1	1	1 Interaction, first impresions, career, goals, shmoozing, socializing
535	1	1	1	1	2	1	1	1	1	1 Making connections to help myself
536	1	1	1	1	1	1	1	1	1	1 Wow, liar, false, delusional, braggart
537	1	1	2	1	2	3	2	3	2	2 I felt very happy and excited.
538	1	1	1	1	2	1	1	1	3	1 proud, accomplished, social, quick-witted, happy
539	1	1	1	1	1	1	1	1	1	1 dirty,fake,cheap,butt kisser,not a good person
540	1	1	1	1	3	1	1	3	1	1 Stressful, unique, performative, important, judgmental, impactful,
541	1	1	1	1	1	1	1	1	1	1 i am glad that i made a good impression on everyone
542	1	1	1	1	1	1	1	1	1	1 that i was very wise to use the party to connect with co workers
543	1	1	2	3	3	3	2	3	3	3 contacts, mingling, smiling, fake, corporate, parties
544	1	1	3	2	6	5	2	6	3	3 fake, boring, exhausting, tiring, dreadful
545	1	1	2	2	2	1	1	1	1	1 smart,manipulative, lucky, future, sly
546	1	1	1	1	1	1	1	1	1	1 important, friendly, high class, important, exciting
547	1	1	1	1	1	1	1	1	1	1 Lucky, smart, determined, sharp, social
548	1	1	1	1	1	1	1	1	1	1 Happiness, joy, content, excitement
549	1	1	1	1	1	1	1	1	1	1 Trying to succeed, keeping my position at this job
550	NA	1	2	2	2	2	2	2	2	2 go getter, intelligent, goal oriented, strong, not afraid, not shy
551	1	1	5	5	5	5	5	5	5	5 inauthentic, oppressive, false, awkward, corrupt
552	1	1	1	1	1	1	1	1	1	1 Proud, anxiety, pleased, cheerful, supportive

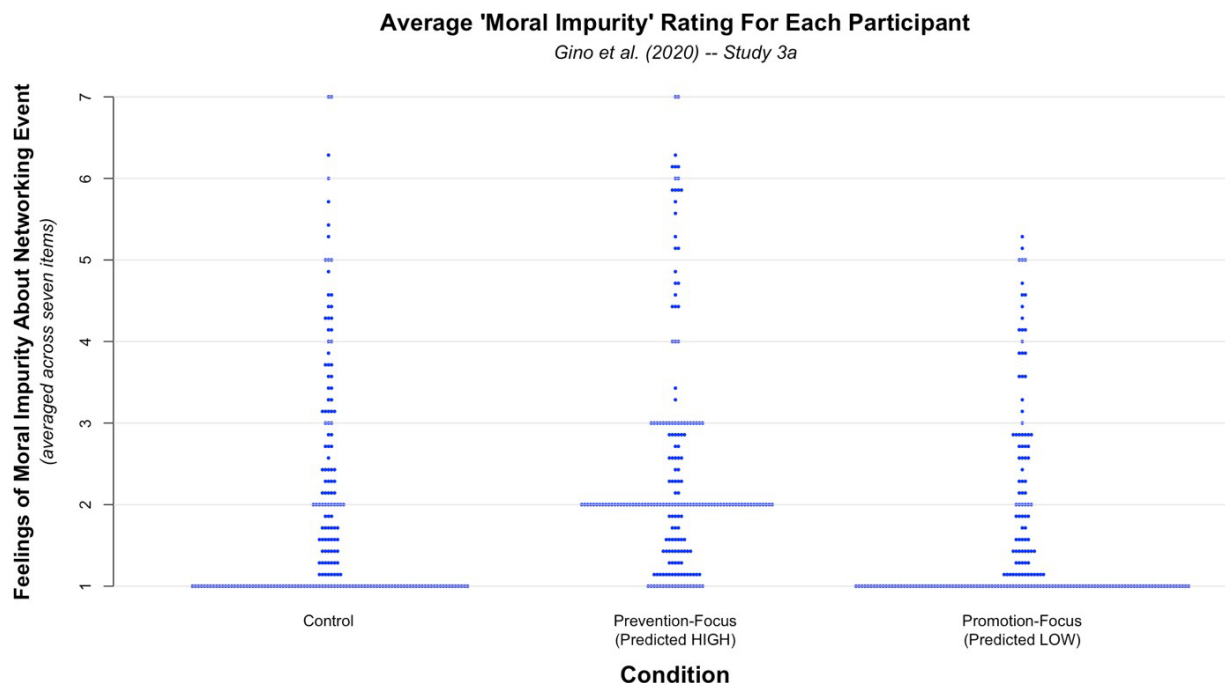
Screenshot of few rows of actual dataset for Study 3a

The first row of data in the screenshot, corresponding to row 531 in the dataset, shows a participant who provided a ‘1’ to all seven of the moral impurity items. This participant didn’t feel *at all* dirty, inauthentic, impure, ashamed, wrong, unnatural, or tainted by imagining herself at the networking event. Looking at the “words2_cond” column on the far right, it can be seen that what this participant wrote about the networking event - “socializing, party, impression, connections, work” – is perfectly consistent with those ratings. Her *ratings* were positive, and her *words* were positive. This is anticipated.

The anomalies discussed below pertain to rows in which participants’ ratings and words are *inconsistent*, when either the ratings are negative and the words are positive, or the ratings are positive and the words are negative.

Many 2s and 3s

Each dot in the figure below represents the average moral impurity rating for a single participant.



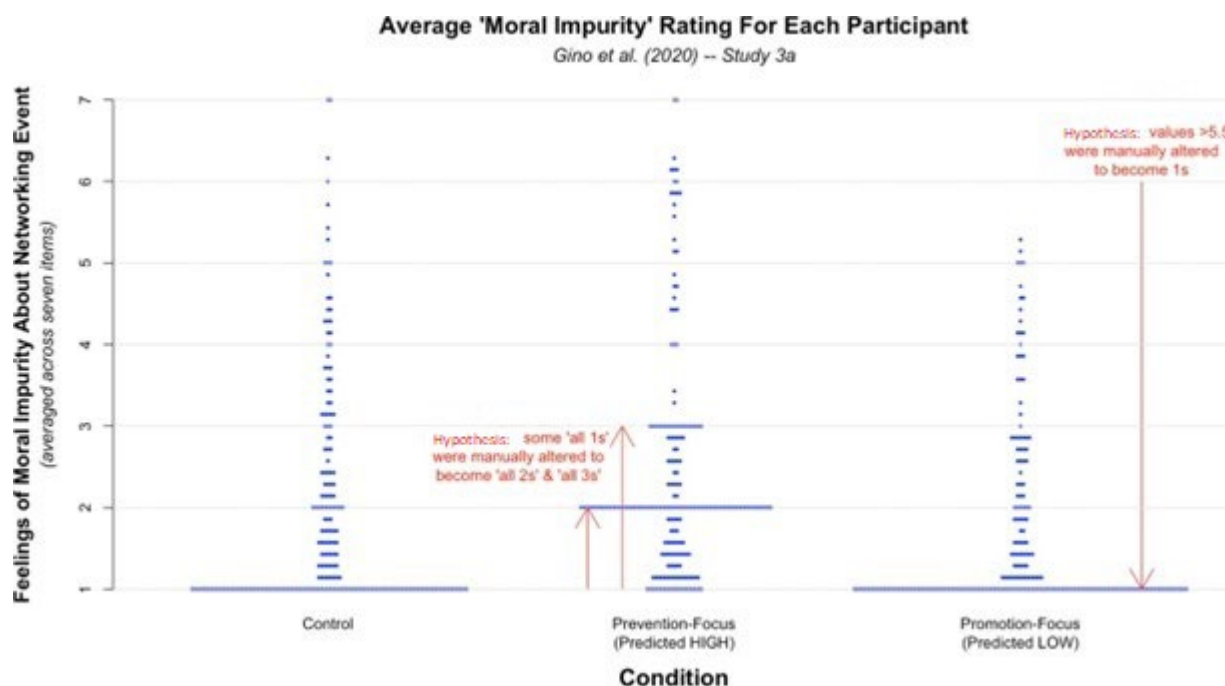
Considering the control condition, on the left, it can be seen that there are many participants with scores of 1.0, indicating that they did not feel *at all* dirty, inauthentic, impure, ashamed, wrong, unnatural, or tainted by imagining themselves at the networking event. How many 1.0s to expect is not knowable, but it seems reasonable that many participants would wind up with this score. There is nothing intrinsically dirty about networking.

Looking at the dots in the middle, the prevention-focus condition, the authors hypothesized that writing a prevention-focused essay would *increase* participants' feelings of moral impurity when imagining the networking event. There is in fact a difference between the control condition and the prevention-focused condition: instead of '1.0' being the most common score on this dependent variable, '2.0' is the most common score on this dependent variable. There is also an increase in the number of '3.0s.'

This dependent variable is an *average* of 7 items. There are multiple ways for seven ratings to yield an average of 2.0 or 3.0, but one simple way is for participants to give all '2s' or all '3s'. It seems unusual for so many people to decide that they are a '2' on every rating for dirty, inauthentic, ashamed, etc. Indeed, ratings of 'all 2s' and 'all 3s' are quite rare in the other two conditions. In combination, the absence of '1.0s' and the presence of '2.0s' and '3.0s' leads to the suspicion that many prevention-focused observations that were 'all 1s' were replaced with 'all 2s' or 'all 3s'. It would be a simple way to alter the data, and it would yield higher moral impurity ratings among prevention-focused participants.

Similarly, the authors hypothesized that writing a promotion-focused essay would *decrease* participants' feelings of moral impurity. The promotion-focused condition on the right side of the figure shows that there are *lots* of '1.0s', more than in the control condition, accompanied by a complete absence of values greater than 5.5. This anomaly leads to the suspicion that those high values were replaced with all 1s. Again, this would be an easy way to alter the data, and it would yield low moral impurity ratings among promotion-focused participants.

This annotated figure summarizes these two forms of hypothesized data alteration:



Participants with positive ratings and negative words (N=9)

Participants both rated how morally impure they felt *and* wrote text describing how they felt, whereas only the ratings were analyzed and the text was not analyzed. This means that manually altering some participants' ratings *without also* manually altering the text that accompanied those ratings would leave a trace. For those altered observations, the valence implied by the ratings and the valence implied by the text would be *inconsistent*.

Focusing on the promotion-focus condition, it is hypothesized here that some very high values – values associated with extreme levels of moral impurity – were altered to become maximally low values – values associated with no moral impurity at all. If that is true, then there should be some data for participants in the dataset who (1) provided an average rating of 1.0 on the moral impurity scale *and* (2) wrote text suggesting that they felt extremely morally *impure*. Moreover, those participants should be over-represented in the promotion-focus condition.

In this dataset there are nine participants who both averaged a 1.0 on the moral impurity scale *and* wrote text implying that they felt high levels of moral impurity. Of the nine, seven of them were in the promotion-focus condition:

CumID_all	MI1	MI2	MI3	MI4	MI5	MI6	MI7	words2_cond	conditions
207	1	1	1	1	1	1	1	1 aggressive, pushy, calculating, egotistic, pushy	control
535	1	1	1	1	1	1	1	1 Wow, liar, false, delusional, braggart	control
118	1	1	1	1	1	1	1	1 I felt uncomfortable and inauthentic. The last thing I want to talk about	promotion
248	1	1	1	1	1	1	1	1 Gross, phony, supercilious, unpleasant, disingenuous	promotion
335	1	1	1	1	1	1	1	1 Scummy; dishonest; disgusting; disingenuous; weak; unoriginal	promotion
359	1	1	1	1	1	1	1	1 All that corporate stuff is awful.	promotion
498	1	1	1	1	1	1	1	1 schmoozing, suck-up, ambition, networking, career, connections	promotion
538	1	1	1	1	1	1	1	1 dirty, fake, cheap, butt kisser, not a good person	promotion
589	1	1	1	1	1	1	1	1 gross slimy player suck up wrong	promotion

This is consistent with the notion that all or some of these apparent '1.0s' were not actually '1.0s'. The words they wrote suggest that they may have instead provided very high ratings on the moral impurity scale, ratings that were later altered.

Participants with negative ratings and positive words (N=79)

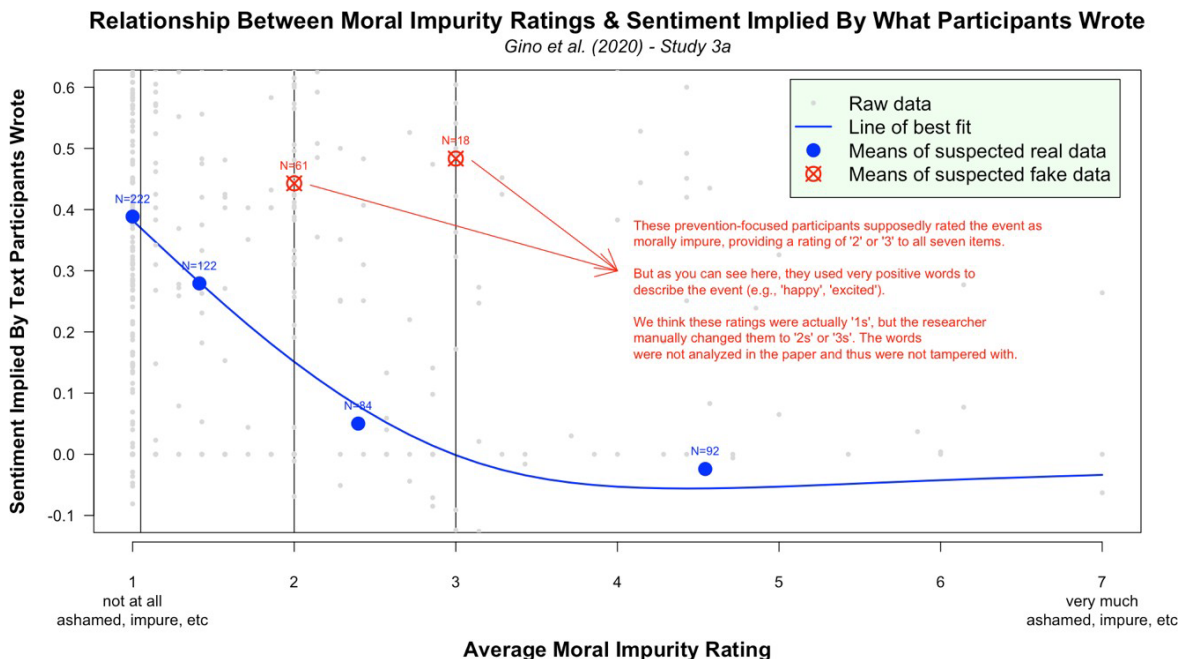
This analysis relies on a technique known as “sentiment analysis,” which uses an algorithm to score a passage of text on the dimension of valence. The VADER package in R was used with an algorithm that took in participants’ textual description of the networking event, and gave it a score from 1 (maximum positivity) to -1 (maximum negativity). The score reflects the net percentage of positive minus negative words in a text sample. If a string of text contains only unambiguously positive words, it will have a score of 100%, or 1.000; if it contains only unambiguously negative words, it will have a score of -100%, or -1.000. The screenshot below shows some participants whose VADER score was maximally positive (i.e., 1.000):

	s3a.net	s3a.words2_cond
18	1.000	Fun, confidence, honor, luck, privilege
30	1.000	excited, fun, hopeful, inspirational, strong, motivated
36	1.000	entertaining, exciting, fun, privileged, encouraging
44	1.000	excited, pleased, interested, smart, excited
115	1.000	Active, novel, proactive, ambitious, satisfied
160	1.000	Excited, focused, accomplished
192	1.000	Fun, excited, important
218	1.000	Happy; Smart; Euphoric; Intelligent; Joy; Celebrate
292	1.000	optimistic, happy
296	1.000	ambitious, determined, engaged, sociable, kind, smart
317	1.000	proud, worth, motivating, lucky, powerful
328	1.000	anticipation, excitement, happy, joy, pleasure
349	1.000	confident thrilled accomplished proud smart

These are the participants with the most negative VADER scores:

	s3a.net	s3a.words2_cond
389	-0.810	gross, exhausting, tired, networking, yucj
371	-0.815	Sleazy, fake, disgusting, boring, pointless
284	-0.846	concerned, worried, angered
207	-0.891	aggressive, pushy, calculating, egotistic, pushy
351	-0.894	worried, stressed, trying, tough, confused
90	-0.903	fake, schmoozing, painful, awkward, weird
543	-0.915	fake, boring, exhausting, tiring, dreadful
399	-0.917	stressful, embarrassing, anxious, talking, fake
576	-0.928	cheating, disgusting, wrong, annoying, slimy
22	-1.000	Stressful, bad, anxiety, dislike, avoidance
68	-1.000	Repulsed, disgusted, tired, annoyed, irritated
305	-1.000	Uncomfortable
392	-1.000	bored, confused, unsure, uncertain, wtf

As indicated above, it is hypothesized that many of the ‘all 2s’ and ‘all 3s’ in the prevention-focus condition may actually have entered ‘all 1s’, and thus may have felt very positively toward the networking event. If this is true, and if the moral impurity ratings were altered but the words those participants wrote about the networking event were not altered, then the words written by those ‘all 2s’ and ‘all 3s’ should look a lot like the words written by ‘all 1s’. They should be much too positive. The figure below is consistent with this prediction.



The blue line in this chart represents the observed relationship between the moral impurity ratings and the sentiment scores across all conditions, excluding the prevention-focused observations that are hypothesized to have been altered. The relationship is negative, as anticipated: More morally impure ratings are associated with lower sentiment scores and thus more negative text descriptions.

The two red dots with X's depict the average sentiment scores of those in the prevention-focus condition who gave ratings of 'all 2s' and 'all 3s'. If they were 'all 1s' to begin with, then the text they wrote should be very positive, and thus their sentiment scores would be high, which is what the above figure indicates. The 'all 2s' and 'all 3s' in the prevention-focused condition wrote text that was just as positive as what the 'all 1s' wrote across the entire sample. This very strongly suggests that a great many of these 'all 2s' and 'all 3s' were really 'all 1s' that had been altered."

Comparison of observations between the original Qualtrics dataset and OSF dataset (Study 3a)

The comparison of the two datasets in the table below shows that, in the original Qualtrics dataset, the average Moral Impurity score in the Prevention condition was lower than in the two other conditions (Promotion and Control). Using the OSF dataset, the calculation of respondents' mean scores in the three conditions reversed the ranking of the Promotion and Prevention conditions, replicating the means and the directionality of the results reported in the published paper.

	Qualtrics dataset	OSF dataset
Promotion	1.98	1.64
Prevention	1.66	2.39
Control	1.97	1.93

For Condition 1, the first table below shows three observations with high average Moral Impurity ratings in the Qualtrics dataset that did not have an exact match in the OSF dataset. In all three, the high Moral Impurity ratings in the Qualtrics dataset (almost all 5, 6, or 7) are almost all 1's (the exception is two 2's) in the OSF data set. Note that changing the numeric ratings but not the statements in the Reflect on the Party column would, in most of these observations, generate the mismatch of words and scores documented.

Similarly, three anomalous observations, as reported in the second table below, were identified for Condition 2, showing a mismatch between the Qualtrics dataset and the OSF dataset. In all three, the low Moral Impurity ratings in the Qualtrics dataset (all 1's) are high ratings (almost all 5, 6, or 7) in the OSF data set.

Condition 1

Source	Essay	Condition	Dirty	Tainted	Inauthentic	As-hamed	Wrong	Un-natural	Impure	AVG	Hope/Aspiration	Reflect on the Party
OSF Row 448	Speaking of career aspiration, your career aspiration is the path in which you want your career to follow. It helps define what you need from your work.	1 Promo	1	2	1	2	1	1	1	1.3	good	happy
Qualtrics Row 451	Speaking of career aspiration, your career aspiration is the path in which you want your career to follow. It helps define what you need from your work.	1 Promo	4	5	6	5	6	7	6	5.6	good	happy
OSF Row 590	I would like to retire! I would be out of this hell hole and would be free to travel with my husband. I ...	1 Promo	1	1	1	1	1	1	1	1.0	Freedom being myself	Gross, slimy player suck up ...
Qualtrics Row 675	I would like to retire! I would be out of this hell hole and would be free to travel with my husband. ...	1 Promo	5	5	6	5	6	7	6	5.7	Freedom being myself ...	Gross, slimy player, suck up wrong
OSF Row 249	I would like to plan a cycling trip around the Ring Road in Iceland. ...	1 Promo	1	1	1	1	1	1	1	1.0	Fun, exploration, exercise, health, travel	Gross, phony, supercilious, unpleasant, disingenuous
Qualtrics Row 252	I would like to plan a cycling trip around the Ring Road in Iceland. I have taken several cycling holidays over the past few years and I believe a ride around Iceland would be an amazing experience.	1 Promo	6	6	7	5	6	7	5	6.0	Fun, exploration, exercise, health, travel	Gross, phony, supercilious, unpleasant, disingenuous

Condition 2

Source	Essay	Condition	Dirty	Tainted	Inauthentic	As-hamed	Wrong	Un-natural	Impure	AVG	Duty/Obligation	Reflect on the Party
OSF Row 5	I have a gym membership that I am not using like I should.	2 Prevent	4	5	6	5	6	7	6	5.6	Future, exercise, fit, money, muscles	Talking, future, work, authentic, friendly
Qualtrics Row 7	I have a gym membership that I am not using like I should.	2 Prevent	1	1	1	1	1	1	1	1.0	Future, exercise, fit, money, muscles	Talking, future, work, authentic, friendly
OSF Row 259	Currently I am having to take care of a schizophrenic female. ...	2 Prevent	7	7	7	7	7	7	7	7.0	it has been a very hectic day	finally the gears are turning
Qualtrics Row 262	Currently I am having to take care of a schizophrenic female. ...	2 Prevent	1	1	1	1	1	1	1	1.0	it has been a very hectic day	finally the gears are turning
OSF Row 172	I have a duty and obligated to complete my job in my office everyday. ...	2 Prevent	7	7	7	7	7	7	7	7.0	i was thinking of a new project taken up by the company and the need to ...	I was very happy that i met all the top executives of the company. This was a rare opportunity and i had made full use of it.
Qualtrics Row 174	I have a duty and obligated to complete my job in my office everyday. ...	2 Prevent	1	1	1	1	1	1	1	1.0	i was thinking of a new project taken up by the company and the need to ...	I was very happy that i met all the top executives of the company. This was a rare opportunity and i had made full use of it.

Assessment by an Independent Forensic Firm

Executive Summary.

There appear to be multiple discrepancies in certain score sets between the original data source (“**Qualtrics Data**”) and public repository data associated with the 2020 JPSP Paper (“**OSF data**”). The discrepancies are demonstrated in two treatment areas: Condition 1 “promotion focus” and Condition 2 “prevention focus”. Furthermore, assessment areas of both “moral impurity” as well as “net intentions” for the two treatment conditions appear to be modified with directionality (e.g., comparative alterations appear to align with described theorized and resultant published motivational approaches). Analyses of the OSF data for average “moral impurity”, “net intentions”, as well as other statistical assessments are consistent with the results reported in the **2020 JPSP Paper**. Utilizing the same analyses for the Qualtrics data demonstrates that outcomes a) appear contrary to reported study effects, and b) have lower (or no) statistical significance.

ANALYSIS AND OBSERVATIONS

Data Analysis.

[Forensic Firm] analyzed data related to publicly available Study 3A and the 2020 JPSP Paper (**OSF data**) in comparison to reported original data (**Qualtrics data**). The Qualtrics data file included 74 input columns. A subset of the 74 input columns of the Qualtrics data were found in the Study3A data set found on the OSF repository. [Forensic Firm] matched the Qualtrics data and the OSF data using essay text responses and participant IDs, then compared the data within the shared subset of input columns.

The numerical values reported in the OSF and Qualtrics datasets, including age, moral impurity and net intention scores were subtracted. The differences between the Qualtrics and OSF data were reported as a numerical value. 0=same. Relative differences were reported as increases (positive values) or decreases (negative values). The differences between the Qualtrics and OSF data were reported as a visual heat map to demonstrate trends in apparent original vs. published data.

Observations.**Identifying Differences between Qualtrics data and OSF data**

[Forensic Firm] produced a list of 1:1 comparisons of surveys presenting identical essay text as well as descriptive words. All surveys with same 'Essay' text also showed the same 'words'. An example for 3 assigned participant IDs is shown below for Condition 1 (*columns have been renamed for ease of review*).

ID	OSF data Essay	Qualtrics data Essay	OSF words 1	Qualtrics words 1	OSF words 2	Qualtrics words 2
113	working for World Wildlife Fund when I retire from current job	working for World Wildlife Fund when I retire from current job	career, rewarding, interest, policy, environment, passion	career, rewarding, interest, policy, environment, passion	career, networking, schmoozing, fake, business, money	career, networking, schmoozing, fake, business, money
233	To pay off my student loans	To pay off my student loans	Hope desire dream wish try	Hope desire dream wish try	life hard help hope want	life hard help hope want
417	To open my own food truck.	To open my own food truck.	Money, partnership, ambition, creativity, investment	money, partnership, ambition, creativity, investment	interaction, friends, entertainment, party,	interaction, friends, entertainment, party,

Discussion

After having identified the source data for each survey utilizing essay contributions and aligning participant IDs, [Forensic Firm] compared the value scores for a number of categories, including the areas assigned by the research participants as perceived "moral impurity" or "intentions to network" for Qualtrics data compared with OSF data. Condition 3, the control condition, showed no difference between the scores in Qualtrics and OSF data sets.

However, conditions 1 and 2 demonstrated a number of differences between the Qualtrics data and the OSF data. In total, 168 survey scores for moral impurity or net intentions appear to have been modified (about the 28% of the data in these survey areas) when comparing OSF survey score data to the scores captured in the original Qualtrics survey.

Assessing Differences between Qualtrics and OSF data

According to p.1229 of the 2020 JPSP Paper:

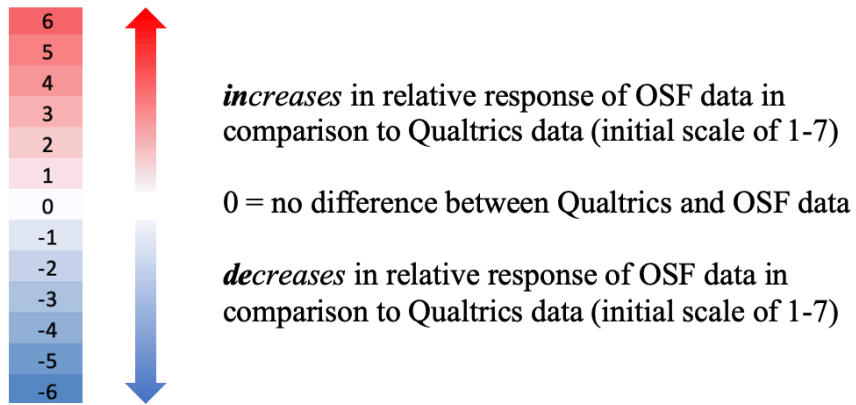
"Participants felt more morally impure in the prevention-focus condition ($M = 2.39$, $SD = 1.36$) as compared to the promotion-focus condition ($M = 1.64$, $SD = 1.07$; $p < .001$) or the control condition ($M = 1.93$, $SD = 1.34$; $p < .001$). Moral impurity was also lower in the promotion-focus condition than in the control condition ($p = .024$).

Networking intentions. Networking intentions also varied by condition, $F(2, 596) = 19.84$, $p < .001$, $h^2p = .062$. Participants indicated they would network less frequently in the future in the prevention-focus condition ($M = 4.07$, $SD = 1.70$) as compared to the promotion-focus condition ($M = 5.12$, $SD = 1.68$; $p < .001$) or the control condition ($M = 4.74$, $SD = 1.71$; $p < .001$). Network intentions were higher in the promotion-focus condition than they were in the control condition (p

$<.024$).

To aid data visualization and summarize the evaluation of the two data sets (OSF vs Qualtrics) we provide a heatmap of the difference in scores by subtracting the Qualtrics score from the OSF score (within the initial 7-point scale, where the authors defined the range as 1 = *not at all* to 7 = *very much*).

The heatmap value:



Discussion, Condition 1.


When considering Condition 1, the *promotion focus* condition, 40 survey responses appear to have been modified. 16 of the OSF surveys, when compared to their Qualtrics counterparts, had decreased moral impurity scores; **BLUE** heatmaps indicating the degree of decrease from slight or low (-1, pale blue) to more substantial decreases (-6, dark blue). 32 of the OSF surveys, when compared to their Qualtrics counterparts, had increased net intention scores; **RED** heatmaps indicating the degree of increase from slight or low (1, pale red) to more substantial increases (6, dark red). The trend of the data alteration in the respective categories appears to align with the authors theorized projections for Condition 1, lower moral impurity and higher networking intentions.

OSF Condition 1 data table, snapshot

First column
Survey ID
Found only in
OSF data)

Moral impurity data

Network intention data



ID (from OSF)	morall mpurit y_1	morall mpurit y_2	morall mpurit y_3	morall mpurit y_4	morall mpurit y_5	morall mpurit y_6	morall mpurit y_7	netInte ntions_ 1	netInte ntions_ 2	netInte ntions_ 3	netInte ntions_ 4
233	0	0	0	0	0	0	0	4	4	4	4
200	-2	-2	-2	-2	-2	-2	-3	0	0	0	0
447	-3	-3	-5	-3	-5	-6	-5	0	0	0	0
471	-3	-4	-5	-4	-5	-6	-5	3	2	1	0
335	-4	-3	-6	-4	-5	-6	-6	2	4	3	3
319	0	0	0	0	0	0	0	4	4	4	4
199	-2	-4	-3	-4	-5	-2	-4	0	0	0	0
30	0	0	0	0	0	0	0	3	3	3	3
498	-4	-3	-5	-2	-2	-4	-4	0	0	0	0
237	0	0	0	0	0	0	0	4	4	4	4
118	-5	-5	-6	-4	-4	-5	-5	2	1	2	1
120	-4	-4	-4	-4	-4	-4	-4	0	0	0	0
204	0	0	0	0	0	0	0	2	2	2	2
309	0	0	0	0	0	0	0	6	6	6	6
589	-4	-4	-5	-4	-5	-6	-5	4	3	4	5
220	0	0	0	0	0	0	0	2	2	2	2
251	0	0	0	0	0	0	0	6	6	6	6
248	-5	-5	-6	-4	-5	-6	-4	5	3	3	4
364	-6	-6	-6	-6	-6	-6	-6	3	3	3	3
376	0	0	0	0	0	0	0	6	6	6	6
5	0	0	0	0	0	0	0	3	3	3	3
268	0	0	0	0	0	0	0	2	2	2	2
290	-3	-2	-3	-2	-2	-4	0	0	0	0	0
47	0	0	0	0	0	0	0	3	3	3	3
454	-3	-2	-4	-3	-4	-4	-4	0	0	0	0
441	-4	-3	-2	-3	-4	-5	-3	0	0	0	0
538	-6	-6	-6	-6	-6	-6	-6	2	5	6	6
8	0	0	0	0	0	0	0	3	3	3	3

414	0	0	0	0	0	0	0	4	4	4	4
232	0	0	0	0	0	0	0	1	1	1	1
260	0	0	0	0	0	0	0	1	1	1	1
103	0	0	0	0	0	0	0	1	1	1	1
224	0	0	0	0	0	0	0	6	6	6	6
593	0	0	0	0	0	0	0	2	2	2	2
169	0	0	0	0	0	0	0	2	2	2	2
359	-6	-5	-6	-4	-6	-6	-4	5	4	4	5
53	0	0	0	0	0	0	0	2	2	2	2
378	0	0	0	0	0	0	0	3	3	3	3
73	0	0	0	0	0	0	0	2	2	2	2
462	0	0	0	0	0	0	0	2	2	2	2

Discussion, Condition 2.

When considering Condition 2, the *prevention focused* condition, 128 survey responses appear to have been modified. 88 of the OSF surveys, when compared to their Qualtrics counterparts, had increased moral impurity scores; **RED** heatmaps indicating the degree of increase from slight or low (1 – pale red) to more substantial increases (6 - dark red). 54 of the OSF surveys, when compared to their Qualtrics counterparts, had decreased net intention scores; **BLUE** heatmaps indicating the degree of decrease from slight or low (-1 – pale blue) to more substantial decreases (-6 - dark blue). The trend of the data alteration in the respective categories appears to align with the authors theorized projections for Condition 2; higher moral impurity and lower networking intentions.

OSF Condition 2 data table, snapshot

First column
Survey ID
Found only in
OSF data)

Moral impurity data

Network intention data

ID (from OSF)	Moral impurity data							Network intention data			
	morallm purity_1	morallm purity_2	morallm purity_3	morallm purity_4	morallm purity_5	morallm purity_6	morallm purity_7	netInte ntions_ 1	netInte ntions_ 2	netInte ntions_ 3	netInte ntions_ 4
28	0	0	0	0	0	0	0	-2	-2	-2	-2
418	2	2	2	2	2	2	2	0	0	0	0
63	1	1	1	1	1	1	1	0	0	0	0
160	1	1	1	1	1	1	1	0	0	0	0
304	2	4	3	4	5	2	4	0	0	0	0
52	1	1	1	1	1	1	1	0	0	0	0
256	1	1	1	1	1	1	1	0	0	0	0
385	1	1	1	1	1	1	1	0	0	0	0
165	1	1	1	1	1	1	1	0	0	0	0
571	1	1	1	1	1	1	1	0	0	0	0
219	2	2	2	2	2	2	2	0	0	0	0
92	2	2	2	2	2	2	2	0	0	0	0
80	2	2	2	2	2	2	2	0	0	0	0
288	1	1	1	1	1	1	1	0	0	0	0
285	1	1	1	1	1	1	1	0	0	0	0
166	0	0	0	0	0	0	0	-1	-1	-1	-1

483	1	1	1	1	1	1	1	0	0	0	0
205	1	1	1	1	1	1	1	0	0	0	0
327	1	1	1	1	1	1	1	0	0	0	0
98	5	5	6	4	4	5	5	-2	-1	-2	-1
105	1	1	1	1	1	1	1	0	0	0	0
36	4	4	5	4	5	6	5	-4	-3	-4	-5
598	1	1	1	1	1	1	1	0	0	0	0
336	1	1	1	1	1	1	1	0	0	0	0
27	1	1	1	1	1	1	1	0	0	0	0
58	0	0	0	0	0	0	0	-2	-2	-2	-2
573	1	1	1	1	1	1	1	0	0	0	0
486	1	1	1	1	1	1	1	-1	-1	-1	-1
249	2	2	2	2	2	2	2	0	0	0	0
197	1	1	1	1	1	1	1	0	0	0	0
431	1	1	1	1	1	1	1	0	0	0	0
74	2	2	2	2	2	2	2	0	0	0	0
437	0	0	0	0	0	0	0	-2	-2	-2	-2
347	1	1	1	1	1	1	1	0	0	0	0
397	0	0	0	0	0	0	0	-2	-2	-2	-2
578	1	1	1	1	1	1	1	0	0	0	0
508	1	1	1	1	1	1	1	0	0	0	0
453	0	0	0	0	0	0	0	-3	-3	-3	-3
449	0	0	0	0	0	0	0	-3	-3	-3	-3
590	0	0	0	0	0	0	0	-1	-1	-1	-1
38	4	3	6	4	5	6	6	-2	-4	-3	-3
121	0	0	0	0	0	0	0	-1	-1	-1	-1
79	1	1	1	1	1	1	1	0	0	0	0
294	1	1	1	1	1	1	1	0	0	0	0
108	5	5	6	4	5	6	4	-5	-3	-3	-4
492	1	1	1	1	1	1	1	0	0	0	0
104	1	1	1	1	1	1	1	0	0	0	0
95	1	1	1	1	1	1	1	0	0	0	0
342	1	1	1	1	1	1	1	0	0	0	0
314	0	0	0	0	0	0	0	-2	-2	-2	-2
9	1	1	1	1	1	1	1	0	0	0	0
525	1	1	1	1	1	1	1	0	0	0	0
196	4	3	5	2	2	4	4	0	0	0	0
410	0	0	0	0	0	0	0	-2	-2	-2	-2
377	2	2	2	2	2	2	2	0	0	0	0
164	3	2	4	3	4	4	4	0	0	0	0
262	1	1	1	1	1	1	1	0	0	0	0
531	1	1	1	1	1	1	1	-1	-1	-1	-1
333	0	0	0	0	0	0	0	-1	-1	-1	-1
505	1	1	1	1	1	1	1	-1	-1	-1	-1
476	2	2	2	2	2	2	2	0	0	0	0
575	1	1	1	1	1	1	1	0	0	0	0
511	0	0	0	0	0	0	0	-2	-2	-2	-2
406	0	0	0	0	0	0	0	-1	-1	-1	-1
167	1	1	1	1	1	1	1	0	0	0	0
325	2	2	2	2	2	2	2	0	0	0	0
576	0	0	0	0	0	0	0	-2	-2	-2	-2
40	1	1	1	1	1	1	1	0	0	0	0
523	1	1	1	1	1	1	1	0	0	0	0
506	2	2	2	2	2	2	2	0	0	0	0
379	1	1	1	1	1	1	1	0	0	0	0
356	1	1	1	1	1	1	1	0	0	0	0
562	0	0	0	0	0	0	0	-3	-3	-3	-3
201	1	1	1	1	1	1	1	0	0	0	0
467	0	0	0	0	0	0	0	-2	-2	-2	-2
479	0	0	0	0	0	0	0	-1	-1	-1	-1
178	2	2	2	2	2	2	2	0	0	0	0

132	0	0	0	0	0	0	0	-2	-2	-2	-2
281	0	0	0	0	0	0	0	-3	-3	-3	-3
503	2	2	2	2	2	2	2	0	0	0	0
170	0	0	0	0	0	0	0	-2	-2	-2	-2
214	1	1	1	1	1	1	1	0	0	0	0
126	6	5	6	4	6	6	4	-5	-4	-4	-5
24	0	0	0	0	0	0	0	-2	-3	-3	-3
473	0	0	0	0	0	0	0	-1	-1	-1	-1
352	2	2	2	2	2	2	2	0	0	0	0
18	1	1	1	1	1	1	1	0	0	0	0
316	0	0	0	0	0	0	0	-1	-1	-1	-1
580	0	0	0	0	0	0	0	-1	-1	-1	-1
261	1	1	1	1	1	1	1	0	0	0	0
396	2	2	2	2	2	2	2	0	0	0	0
4	3	4	5	4	5	6	5	-3	-2	-1	0
301	2	2	2	2	2	2	2	0	0	0	0
19	2	2	2	2	2	2	2	0	0	0	0
171	6	6	6	6	6	6	6	-2	-5	-6	-6
380	1	1	1	1	1	1	1	0	0	0	0
110	0	0	0	0	0	0	0	-1	-1	-1	-1
591	0	0	0	0	0	0	0	-1	-1	-1	-1
391	2	2	2	2	2	2	2	0	0	0	0
355	0	0	0	0	0	0	0	-1	-1	-1	-1
549	1	1	1	1	1	1	1	-1	-1	-1	-1
317	0	0	0	0	0	0	0	-1	-1	-1	-1
291	0	0	0	0	0	0	0	-4	0	0	0
85	0	0	0	0	0	0	0	-1	-1	-1	-1
271	1	1	1	1	1	1	1	0	0	0	0
283	1	1	1	1	1	1	1	0	0	0	0
584	0	0	0	0	0	0	0	-1	-1	-1	-1
114	1	1	1	1	1	1	1	0	0	0	0
193	0	0	0	0	0	0	0	-1	-1	-1	-1
235	1	1	1	1	1	1	1	0	0	0	0
13	0	0	0	0	0	0	0	-5	-5	-5	-5
243	0	0	0	0	0	0	0	-1	-1	-1	-1
361	1	1	1	1	1	1	1	0	0	0	0
502	1	1	1	1	1	1	1	-1	-1	-1	-1
450	0	0	0	0	0	0	0	-2	-2	-2	-2
115	1	1	1	1	1	1	1	0	0	0	0
384	1	1	1	1	1	1	1	0	0	0	0
522	1	1	1	1	1	1	1	-1	-1	-1	-1
238	0	0	0	0	0	0	0	-2	-2	-2	-2
111	1	1	1	1	1	1	1	0	0	0	0
366	0	0	0	0	0	0	0	-2	-2	-2	-2
258	6	6	6	6	6	6	6	-3	-3	-3	-3
192	4	4	5	4	4	4	4	0	0	0	0
239	0	0	0	0	0	0	0	-1	-1	-1	-1
514	1	1	1	1	1	1	1	0	0	0	0
413	1	1	1	1	1	1	1	0	0	0	0
405	0	0	0	0	0	0	0	-1	-1	-1	-1
594	2	2	2	2	2	2	2	0	0	0	0

Discussion, Assessing statistical differences between OSF and Qualtrics data.

The replication of the statistical assessment of the data relative to Study 3A shows lower statistical significance between samples when comparing results obtained under the three conditions. It also shows opposite trends of means between the OSF data (results reported in the 2020 JPSP paper) and the Qualtrics data for prevention and promotion focus both for net intentions as well as moral impurity. The tables

below outline the differences in calculated statistical values between the OSF data (reported in the 2020 JPSP paper) and the Qualtrics data.

Table 1. Moral impurity

	F-test analysis			Average and SD				p between conditions		
				Prevention		Promotion		Prev.-Control	Prom.-Control	Prev.-Prom.
	F	p value	η_p^2	M	SD	M	SD	p value	p value	p value
2020 JPSP	17.69	<0.001	0.056	2.39	1.36	1.64	1.07	<.001	0.024	<.001
OSF	17.69	3.44E-8	0.056	2.39	1.36	1.64	1.07	<.001	0.024	<.001
Qualtrics	3.90	0.02	0.013	1.63	1.17	1.98	1.48	0.028	0.704	0.010

Table 2. Net Intentions

	F-test analysis			Average and Standard Deviation				p between conditions		
				Prevention		Promotion		Prev.-Control	Prom.-Control	Prev.-Prom.
	F	p value	η_p^2	M	SD	M	SD	p value	p value	p value
2020 JPSP	19.84	<0.001	0.062	4.07	1.70	5.12	1.68	<0.001	0.024	<0.001
OSF	19.84	4.55E-9	0.062	4.07	1.70	5.12	1.68	<0.001	0.024	<0.001
Qualtrics	0.48	0.62	0.002	4.57	1.83	4.63	1.75	0.335	0.516	0.750

As outlined above, the data as reported in the 2020 JPSP appear to align with the OSF data. However, when considering statistical significance, the p-value of the F test for both ‘moral impurity’ and ‘net intention’ appears to be higher in the Qualtrics data than in the OSF (2020 JPSP) data, and much higher than 0.05 (0.62) for ‘net intention’.

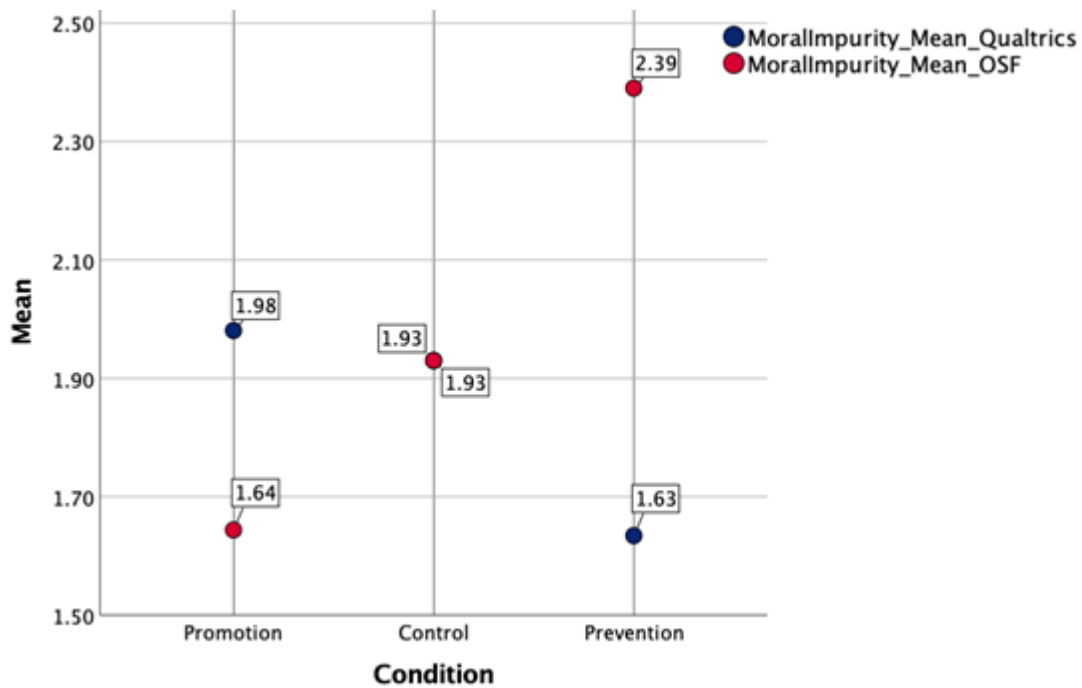
Comparing calculated η_p^2 , for both data sets, the OSF η_p^2 values align with the 2020 JPSP published data for both ‘moral impurity’ and ‘net intentions’ (see “F-test analysis” in Tables 1. and 2. η_p^2 columns for both 2020 JPSP and OSF; aligning values are 0.056 and 0.062, respectively). When the same η_p^2 calculations are completed for the Qualtrics data, the resultant values appear decreased compared to their 2020 JPSP and OSF counterparts (see “F-test analysis” in Table1. η_p^2 column, 0.013 (Qualtrics) compared to 0.056 (OSF) and Table2. η_p^2 column, 0.002 (Qualtrics) compared to 0.062 (OSF)).

To compute the significance between conditions, all post-hoc anova significance algorithms were tested. A match was found with the published results when using Fisher's Least Significant Difference (LSD) Test post-hoc on OSF data. The same algorithm on the Qualtrics data shows lower significance.

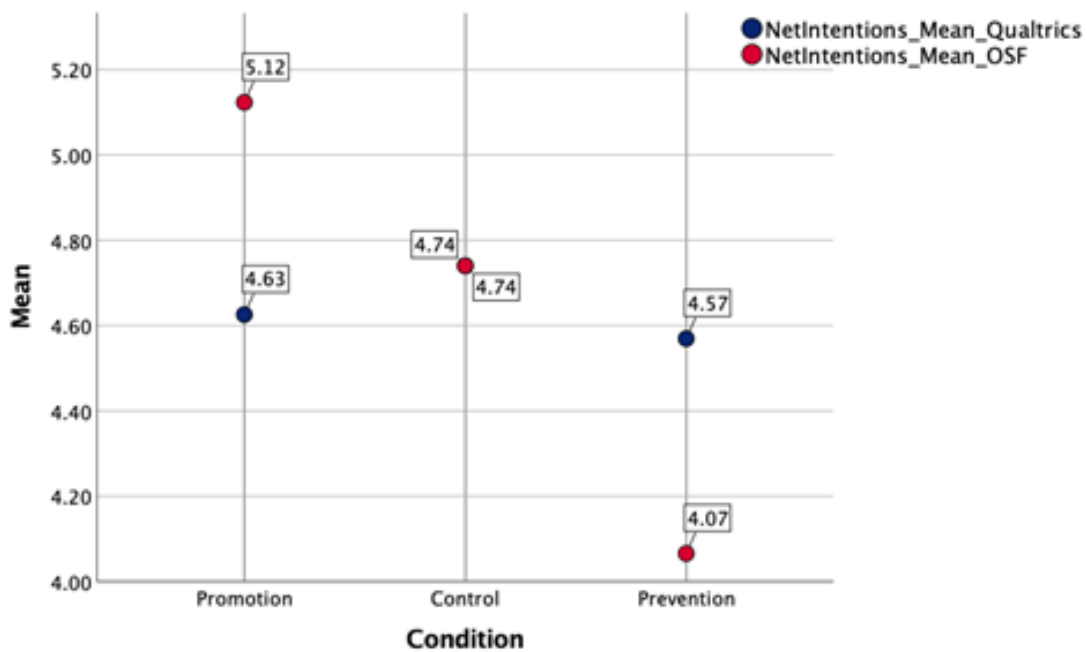
Finally, the means obtained in Qualtrics for “moral impurity” and “net intentions” data appear to show opposite effects than reported. **Graph 1** below details these differences in the “Moral Impurity” data where Promotion Focus data are higher (1.98) and Prevention Focus data are lower (1.63) in Qualtrics data as compared to their OSF (published) counterparts. Similarly, for “net intentions” (see **Graph 2**) data we also see an opposite effect than reported; where Promotion Focus data are lower (4.63) and Prevention Focus data are higher (4.57) in Qualtrics data as compared to their OSF (published) counterparts. Additionally, for the “net intentions” data, the highest value was obtained for the control condition (see **Graph 2**, Control Condition).

Plots of average scores across datasets (possible values of 1-7)

Graph 1



Graph 2



Summary.

There appear to be multiple discrepancies between the published data found in the public repository associated with the 2020 JPSP Paper (“OSF data”) and the raw source data (“Qualtrics Data”).

No differences were identified in the data for “moral impurity” and “networking intentions” for Condition 3 (“control”). Assessment areas of both “moral impurity” as well as “net intent” for the two treatment conditions appear to have been modified with directionality (e.g., comparative alterations appear to align with described theorized and resultant published motivational approaches).

A closer look at the discovered modifications shows alteration of the data at the single cell level. For example, from [Forensic Firm] Discussion, Condition 1:

Participant 309: no change in moral impurity data, uniform change in networking intention data:



Participant 589: selective changes, non-uniform, in both moral impurity and networking intention data:

589	-4	-4	-5	-4	-5	-6	-5	4	3	4	5
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Therefore, differences are demonstrated at both the inter-survey responses (between moral impurity and networking intentions) and intra-survey response (within a given participant’s response).

As shown in the table below, 28% of the total survey scale data for assessing the effects of promotion and prevention regulatory focus on feelings of impurity and intentions to engage in networking appear to be different in the published repositories as compared to the original Qualtrics data.

Total rows with values changed	Number of surveys with modified data	Percentage of surveys with modified data
condition 1	40	20%
condition 2	128	65%
condition 3	0	0
TOTALS	168	28%

Statistical analysis of the data from Qualtrics and OSF shows that the data from OSF were the likely source for the reported statistics as their calculated values in the assessments presented here align with the published data. The same analysis on the Qualtrics data, however, demonstrates that the original data report:

- i. lower statistical significance, with p values orders of magnitude higher, and above 0.05 for both 'moral impurity' and 'net intention',
- ii. decreased values and apparent smaller size-effect,
- iii. opposite resultant means for 'moral impurity' and 'net intention' scores across Promotion or Prevention conditions,
- iv. opposite resultant study trends for 'moral impurity' scores across Promotion and Prevention conditions,
- v. almost no effect for 'net intention' scores across conditions with highest value apparently obtained for the control condition in the original (Qualtrics) data, and,
- vi. lower significance of the difference of effect between conditions (compare LSD post hoc analysis of Qualtrics to OSF data sets, respectively).